BBA

General Subjects

Vol. 1073, 1991

Cumulative Contents

Information for Contributors ix

Regular Papers

Isolation of estradiol-2,3-quinone and its intermediary role in melanin formation
M.K. Jacobsohn, D.M. Byler and G.M. Jacobsohn (U.S.A.) 1

Purification and properties of a subtilisin inhibitor and an associated trypsin inhibitor from *Dolichos biflorus*
A.M. Bodhe (India) 11

Characterization of the general anion-binding site in glutamate dehydrogenase-NADPH complex
R. Srinivasan (U.S.A.) 18

Epitope prediction and confirmation for the human androgen receptor: Generation of monoclonal antibodies for multi-assay performance following the synthetic peptide strategy
N.D. Zegers, E. Claassen, C. Neelen, E. Mulder, J.H. Van Laar, M.M. Voorhorst, C.A. Berrevoets, A.O. Brinkmann, T.H. Van der Kwast, J.A. Ruizeveld de Winter, J. Trapman and W.J.A. Boersma (The Netherlands) 23

Reversible binding of peptide aldehydes to papain. Structure–activity relationships
R.P. Hanzlik, S.P. Jacober and J. Zygmunt (U.S.A.) 33

Purification and characterization of two endopolygalacturonases from *Sclerotinia sclerotiorum*
G. Waksman, J.P.R. Keon and G. Turner (U.K.) 43

Purification and characterization of two endo-β-1,4-D-glucanases from *Sclerotinia sclerotiorum*
G. Waksman (U.K.) 49

Isolation and characterization of cell adhesion molecules from the marine sponge, *Ophlitaspongia tenuis*
C.R. Parish, K.B. Jakobsen, D.R. Coombe and A. Bacic (Australia) 56

Effect of salt acclimation on digitalis-like compounds in the toad
D. Lichtstein, I. Gati, T. Babila, E. Haver and U. Katz (Israel) 65

Solubilization of thiamine triphosphatase from the electric organ of *Electrophorus electricus*
L. Bettendorff, I. Longrée, P. Wins and E. Schoffeniels (Belgium) 69

Purification and characterization of coenzyme F_{420}-dependent 5,10-methylenetetrahydromethanopterin dehydrogenase from *Methanobacterium thermoautotrophicum* strain ΔH
B.W. Te Brömmelstroet, C.M.H. Hensgens, J.T. Keltjens, C. Van der Drift and G.D. Vogels (The Netherlands) 77

Mechanism of inhibition of melanogenesis by hydroquinone
A. Palumbo, M. D'Ischia, G. Misuraca and G. Prota (Italy) 85

Antioxidant role and subcellular location of hypotaurine and taurine in human neutrophils
T.R. Green, J.H. Fellman, A.L. Eicher and K.L. Pratt (U.S.A.) 91

Extraction of proteins from material rich in anionic mucilages: Partition and fractionation of vanadate-dependent bromoperoxidases from the brown algae *Laminaria digitata* and *L. saccharina* in aqueous polymer two-phase systems
P. Jordan and H. Vilter (F.R.G.) 98

The identification, purification and characterisation of an inhibitor of collagenase (20K) produced by neoplastic epithelial cells
J.M. Whitelock, R.L. O'Grady and J.R. Gibbins (Australia) 107

Purification and characterization of a veratryl alcohol oxidase enzyme from the lignin degrading basidiomycete *Pleurotus ostreatus*
G. Sannia, P. Limongi, E. Cocca, F. Buonocore, G. Nitti and P. Giardina (Italy) 114

Synthesis and processing of lysosomal α-fucosidase in cultured human fibroblasts
K.F. Johnson, L.W. Hancock and G. Dawson (U.S.A.) 120

Interactions of intracellular mediators of amylase secretion in permeabilized pancreatic acini
M. Kitagawa, J.A. Williams and R.C. De Lisle (U.S.A.) 129

Physicochemical characteristics of the terbium-adriamycin complex and its effects on the sinus node automaticity
R.G. Canada and R.G. Carpentier (U.S.A) 136

Purification and properties of an extreme thermostable glutamate dehydrogenase from the archaebacterium *Sulfolobus solfataricus*

M.F. Schinkinger, B. Redl and G. Stöffler (Austria, F.R.G.) 142

The effect of hydrophobic interaction on endotoxin adsorption by polymeric affinity matrix
K.C. Hou and R. Zaniewski (U.S.A.) 149

Species-specific distribution of cathepsin E in mammalian blood cells
S. Yonezawa and K. Nakamura (Japan) 155

Kinetic and immunologic evidence for the absence of glucose-6-phosphatase in early human chorionic villi and term placenta
V. Barash, A. Riskin, E. Shafrir, I.D. Waddell and A. Burchell (Israel, U.K.) 161

Indomethacin attenuation of hepatic perfusion and plasma 6-ketoPGF$_{1\alpha}$ elevations following glutathione depletion in rabbits
W. Bottje, R. Glahn, K. Beers, H. Nejad, W. Graupner and K.R. Holmes (U.S.A.) 168

Microsomal chitinase activity from *Candida albicans*
K. Dickinson, V. Keer, C.A. Hitchcock and D.J. Adams (U.K.) 177

Two-hydronic-reactive states of acetylcholinesterase, mechanistically relevant acid-base catalyst of pK_a 6.5 and a modulatory group of pK_a 5.5
E. Salih (U.S.A.) 183

Interaction of nitrofurans with glutathione reductase
N.K. Čénas, D.A. Bironaité, J.J. Kulys and N.M. Sukhova (U.S.S.R.) 195

Activation by spermine of citrate synthase from porcine heart
M. Yoshino, Y. Yamada and K. Murakami (Japan) 200

D-Aspartate oxidase, a peroxisomal enzyme in liver of rat and man
P.P. Van Veldhoven, C. Brees and G.P. Mannaerts (Belgium) 203

Azido derivative of tricarboxylic acid for photoaffinity labeling
A. Szewczyk, D. Claeys, W. Mertens and A. Azzi (Switzerland) 209

New substrates of the multispecific bile acid transporter in liver cells: interference of some linear renin inhibiting peptides with transport protein(s) for bile acids
A.A. Bertrams and K. Ziegler (F.R.G.) 213

Reports

Induction of heme oxygenase mRNA by cobalt protoporphyrin in rat liver
T.J. Smith, S. Haque and G.S. Drummond (U.S.A.) 221

Structural determination of three neutral oligosaccharides in bovine (Holstein-Friesian) colostrum, including the novel trisaccharide; GalNAcα1-3Galβ1-4Glc
T. Urashima, T. Saito, K. Ohmisya and K. Shimazaki (Japan) 225

Purification of histone H1^0 and its subfractions under non-denaturing conditions
T. Banchev, L. Srebreva and J. Zlatanova (Bulgaria) 230

Isolation and identification of α-(β-alanyl)hypusine from bovine brain
S.-i. Ueno, K. Kotani, A. Sano and Y. Kakimoto (Japan) 233

Carboxyl group orientation in *K*-palmitate/water using ^{13}C double resonance spectroscopy
D.B. Langlais and J.H. Davis (Canada) 236

Erratum 239

Review

Multiple or pleiotropic drug resistance in yeast
E. Balzi and A. Goffeau (Belgium) 241

Regular Papers

The role of protein kinases in anoxia tolerance in facultative anaerobes: purification and characterization of a protein kinase that phosphorylates pyruvate kinase
S.P.J. Brooks and K.B. Storey (Canada) 253

The effect of nutritional state and allopurinol on nucleotide formation in enterocytes from the guinea pig small intestine
C.J. Gross and D.A. Savaiano (U.S.A.) 260

The presence of a covalently cross-linked matrix in human platelets
J. Harsfalvi, L. Fesus, E. Tarcsa, J. Laczko and A.G. Loewy (Hungary, U.S.A.) 268

Transport of steroid hormones facilitated by serum proteins
S. Watanabe, T. Tani, S. Watanabe and M. Senō (Japan) 275

The effect of osmotic and mechanical pressures on water partitioning in articular cartilage
A. Maroudas, E. Wachtel, G. Grushko, E.P. Katz and P. Weinberg (Israel, U.S.A.) 285

Activation of the matrix metalloproteinase inhibitor complex by a low molecular weight angiogenic factor
B. McLaughlin, T. Cawston and J.B. Weiss (U.K.) 295

ATP-stimulated degradation of endogenous proteins in cell-free extracts of BHK 21/C13 fibroblasts. A key role for the proteinase, macropain, in the ubiquitin-dependent degradation of short-lived proteins

G.N. DeMartino, M.L. McCullough, J.F. Reckelhoff, D.E. Croall, A. Ciechanover and M.J. McGuire (U.S.A., Israel) 299

Glycosylation of P-glycoprotein in a multidrug-resistant KB cell line, and in the human tissues
M. Ichikawa, A. Yoshimura, T. Furukawa, T. Sumizawa, Y. Nakazima and S.-i. Akiyama (Japan) 309

Increased catalytic activity of cytochrome *P*-450IIE1 in pericentral hepatocytes compared to periportal hepatocytes isolated from pyrazole-treated rats
E. Dicker, T. McHugh and A.I. Cederbaum (U.S.A.) 316

Photoaffinity labeling of the 1,25-dihydroxyvitamin D-3 receptor
T.A. Brown and H.F. DeLuca (U.S.A.) 324

Cellular metabolism of proxyl nitroxides and hydroxylamines
M. Sentjurc, S. Pecar, K. Chen, M. Wu and H. Swartz (U.S.A.) 329

The effect of Mg^{2+} on the Ca^{2+} binding to troponin C in rabbit fast skeletal myofibrils
S. Morimoto (Japan) 336

Relationship between the concanavalin A-agglutinability and deformability of human erythrocytes
K.N. Pestonjamasp and N.G. Mehta (India) 341

Stimulation of alanine metabolism by ammonia in the perfused rat liver. Quantitative analysis by means of a mathematical model
R. Bohnensack and S. Fritz (F.R.G.) 347

Thermodynamic analysis of the equilibrium, association and dissociation of 2′GMP and 3′GMP with ribonuclease T_1 at pH 5.3
A.D. MacKerell Jr., R. Rigler, U. Hahn and W. Saenger (Sweden, F.R.G.) 357

The hexose transporters at the plasma membrane and the tonoplast of transformed plant cells: kinetic characterization of two distinct carriers
R. Verstappen, S. Ranostaj and T. Rausch (F.R.G.) 366

Inhibition of carrageenin-induced paw edema by a superoxide dismutase derivative that circulates bound to albumin
Y. Ando, M. Inoue, S. Araki and Y. Morino (Japan) 374

Ascorbate is regenerated by HL-60 cells through the transplasmalemma redox system
F.J. Alcain, M.I. Buron, J.M. Villalba and P. Navas (Spain) 380

The identification of a structurally important cysteine residue in the glycerol dehydrogenase from *Bacillus stearothermophilus*
P. Spencer, M.D. Scawen, T. Atkinson and M.G. Gore (U.K.) 386

Release of fatty acid-binding protein from ischemic-reperfused rat heart and its prevention by mepacrine
D.K. Das, P.K. Barua and R.M. Jones (U.S.A.) 394

Particulate diadenosine 5′,5‴-P^1,P^3-triphosphate hydrolases in rat brain: two specific dinucleoside triphosphatases and two phosphodiesterase I-like hydrolases
J.A. García-Agúndez, J.C. Cameselle, M.J. Costas, M.A.G. Sillero and A. Sillero (Spain) 402

Compartmented metabolite pools in protoplasts from the green alga *Chlamydomonas reinhardtii*: changes after transition from aerobiosis to anaerobiosis in the dark
G. Klöck and K. Kreuzberg (F.R.G.) 410

2-Aryl-1,3-thiazolidines as masked sulfhydryl agents for inhibition of melanogenesis
A. Napolitano, M. D'Ischia, G. Prota, M. Havens and K. Tramposch (Italy, U.S.A.) 416

Peroxidase as an alternative to tyrosinase in the oxidative polymerization of 5,6-dihydroxyindoles to melanin(s)
M. D'Ischia, A. Napolitano and G. Prota (Italy) 423

Reports

Fluorometric determination of phenylacetyl-CoA ligase from *Pseudomonas putida*: A very sensitive assay for a newly described enzyme
L.B. Rodríguez-Aparicio, A. Reglero, H. Martínez-Blanco and J.M. Luengo (Spain) 431

Vitamin K-dependent carboxylation of poly-L-glutamate
B.A.M. Soute, R. Budé and C. Vermeer (The Netherlands) 434

Regular Papers

Factor XIII of blood coagulation decreases the susceptibility of collagen precursors to proteolysis
M. Paye, B. Nusgens and C.M. Lapière (Belgium) 437

Receptor-mediated endocytosis of A_{14}-^{125}I-insulin by the nonfiltering perfused rat kidney
H. Sato, K. Yoshioka, T. Terasaki and A. Tsuji (Japan) 442

Partition of isomeric dipeptides in poly(ethylene glycol)/magnesium sulfate aqueous two-phase systems
M.A. Eiteman and J.L. Gainer (U.S.A.) 451

Effect of metabolic inhibitors on uptake of non-transferrin-bound iron by reticulocytes
Z.M. Qian and E.H. Morgan (Australia) 456

Regulation of molybdenum cofactor species in the green alga *Chlamydomonas reinhardtii*

M.R. Aguilar, J. Cárdenas and E. Fernández (Spain) 463

Purification and properties of AMP-deaminase from human uterine smooth muscle
G. Nagel-Starczynowska, G. Nowak and K. Kaletha (Poland) 470

Catabolism of adenine nucleotides in suspension-cultured plant cells
N. Yabuki and H. Ashihara (Japan) 474

Transglycosylation activity of cellobiohydrolase I from *Trichoderma longibrachiatum* on synthetic and natural substrates
A.V. Gusakov, O.V. Protas, V.M. Chernoglazov, A.P. Sinitsyn, G.V. Kovalysheva, O.V. Shpanchenko and O.V. Ermolova (U.S.S.R.) 481

Fluorocarbon perfusion of the isolated rat brain: measurement of tissue spaces, EEG and oxygen uptake
S.A.K. Harvey, M.L. Trankina, M.S. Olson and J.B. Clark (U.S.A., U.K.) 486

Reverse enzyme synthesis in microemulsion-based organo-gels
G.D. Rees, M. Da Graca Nascimento, T.R.J. Jenta and B.H. Robinson (U.K.) 493

Yeast proteinase yscB inactivates the leucyl tRNA synthetase in extracts of *Saccharomyces cerevisiae*
I.F. Larrinoa and C.F. Heredia (Spain) 502

Antibodies against DNA-psoralen crosslink recognize unique conformation
R. Hasan, A. Ali and R. Ali (India) 509

Identification of a ubiquitin- and ATP-dependent protein degradation pathway in rat cerebral cortex
M. Okada, M. Ishikawa and Y. Mizushima (Japan) 514

Analysis of the phosphorylation state of a collagen-binding heat-shock glycoprotein from L6 myoblasts by isoelectric focusing
G.A. Cates (Canada) 521

DNA-binding properties and antitumour activity of monofunctional alkylating groups attached to the DNA-intercalating chromophore phenanthridine: *n*-bromoalkylphenanthridinium bromides
G. Wickham, A.S. Prakash, L.P.G. Wakelin and W.D. McFadyen (Australia) 528

Anti-bilirubin monoclonal antibody. III. Preparation and properties of monoclonal antibodies to unconjugated bilirubin-IXα
Y. Okamura, M. Yamazaki, T. Yamaguchi, Y. Komoda, A. Sugimoto and H. Nakajima (Japan) 538

Effect of exogenous carnitine on carnitine homeostasis in the rat
L.J. Ruff, L.G. Miller and E.P. Brass (U.S.A.) 543

Phosphorylase *b* kinase and phosphorylase *a* phosphatase activities in contracting vascular smooth muscle: stimulation by fatty acid
J.T. Barron and S.J. Kopp (U.S.A.) 550

Opposite-end behaviour of dynamic microtubules
S.R. Martin, M.J. Schilstra and P.M. Bayley (U.K.) 555

Diferric transferrin reduction by K562 cells. A critical study
A. Bérczi, J.A. Sizensky, F.L. Crane and W.P. Faulk (U.S.A., Hungary) 562

Intestinal glutathione transport system: a possible detoxication role
M.T. Vincenzini, F. Favilli, M. Stio and T. Iantomasi (Italy) 571

Temperature dependence of DNA dielectric dispersion at radiofrequency
F. Pedone and A. Bonincontro (Italy) 580

Mapping epitopes on the (Ca^{2+}-Mg^{2+})-ATPase of sarcoplasmic reticulum using fusion proteins
R.E.A. Tunwell, C.D. O'Connor, A.M. Mata, J.M. East and A.G. Lee (U.K.) 585

Drug metabolising *N*-acetyltransferase activity in human cell lines
E. Coroneos, J.W. Gordon, S.L. Kelly, P.D. Wang and E. Sim (U.K.) 593

Cellular mechanisms of bradykinin-induced hyperpolarization in renal epitheloid MDCK-cells
F. Lang, M. Paulmichl, J. Pfeilschifter, F. Friedrich, E. Wöll, S. Waldegger, M. Ritter and E. Tschernko (Austria, Switzerland) 600

Effects of thermodynamic nonideality in kinetic studies: evidence of an expanded intermediate complex in the inactivation of thrombin by antithrombin III
P.J. Hogg, C.M. Jackson and D.J. Winzor (Australia, U.S.A.) 609

Binding assay and physicochemical characteristics of solubilized intrinsic factor receptor in ileal mucosal homogenates using phenyl-Sepharose to separate the saturated receptor from free intrinsic factor
J.L. Guéant, H. Schohn, H. Brulé, M. Saunier, R. Gräsbeck and J.P. Nicolas (France, Finland) 614

The fluorescence quenching resolved spectra and red-edge excitation fluorescence measurements of human α_1-proteinase inhibitor
H. Kołoczek, A. Waśniowska, J. Potempa and Z. Wasylewski (Poland) 619

Cumulative Contents, Vol. 1073 627

Author Index 631